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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/045,272	10/25/2001	Keimpe Jan Van Den Berg	AC02833US	4450

7590 05/19/2004

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EXAMINER

SERGEANT, RABON A

ART UNIT	PAPER NUMBER
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1711

DATE MAILED: 05/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/045,272

Applicant(s)

VAN DEN BERG ET AL.

Examiner

Rabon Sergent

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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1. Claims 1-17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Within claims 1, 2, 13, and 14, applicants have failed to set forth a basis for the weight percent of alkylene oxide groups. It is not seen that applicants' remark, that the scope of claim 1, as filed, is understood, addresses the issue.

Within claim 7, applicants have claimed that the composition further comprises a polyisocyanate and active hydrogen containing compounds. Applicants then specify within claim 8, dependent from claim 7, that the further active hydrogen containing compound is the (meth)acryloyl-functional polyurethane. These claims are confusing, because they specify that the required (meth)acryloyl-functional polyurethane of claim 1 is yet a further component of the composition.

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later

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invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over CA 2,269,412 in view of EP 424705.

The primary reference discloses UV-curable aqueous coating compositions comprising (meth)acryloyl functional polyurethanes, optional additional polyisocyanates, a UV initiator, and active hydrogen containing compounds. See abstract.

4. The primary reference fails to specifically recite applicants' claimed content of alkylene oxide groups; however, the reference discloses at page 6, lines 7-14 that the incorporation of the (meth)acryloyl functional polyurethanes into the aqueous binders may be facilitated by rendering the polyisocyanates used to produce the (meth)acryloyl-functional polyurethanes hydrophilic.

The reference further discloses that one method of accomplishing the hydrophilic modification of the isocyanates is through the incorporation of internal or external non-ionic groups, such as polyethers (alkylene-oxide containing compounds). Furthermore, the incorporation of alkylene oxide groups in amounts that overlap the amounts claimed by applicants within analogous (meth)acryloyl-functional polyurethanes for the ultimate purpose of rendering polymers derived from them hydrophilic or water dispersible was known at the time of invention. This position is supported by the teachings of EP 424705 at page 5, lines 14-26.

5. Therefore, in view of the combined teachings of the primary and secondary references regarding the hydrophilic modification of the (meth)acryloyl-functional polyurethanes, the position is taken that it would have been obvious to one of ordinary skill in the art to incorporate alkylene oxide groups within (meth)acryloyl-functional polyurethanes in amounts that were

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known to contribute hydrophilicity to (meth)acryloyl-functional polyurethanes, so as to facilitate or improve the dispersion of the (meth)acryloyl-functional polyurethanes within the aqueous coating composition.

6. Additionally, though the primary reference is silent regarding the use of the coating as a clearcoat composition, the position is taken that it would have been obvious to utilize the composition as a clearcoat by deleting the pigment component of the coating.

Any inquiry concerning this communication should be directed to R. Sargent at telephone number (571) 272-1079.

R. Sargent
May 14, 2004


RABON SERGENT
PRIMARY EXAMINER